



Managing geo-reference data within River Information Services – the RIS Index

Christoph Plasil, via donau

14.09.2011





Introduction

- RIS is built on four key services:
 - Inland ECDIS (electronic navigational charts)
 - Notices to Skippers (notices to mariners)
 - Electronic reporting (electronic submission of cargo/commodity)
 - Vessel tracking and tracing (Inland AIS)
- All services make use of (geo-)reference data



RIS reference data

- is used for (unique) encoding of information
- data sets are maintained by different organizations (RIS providers, authorities, standardization organizations)
- The RIS Index is a tool for geo-reference data management.

[illegible]



Geo-ref. data production (AT)

- Orthophoto / GIS Data
- IENC production
- Object properties in IENCs
- IENC – RIS Index converter
- Use of RIS Index for RIS Services (NtS, ERI, VTT, additional non-standardized services)

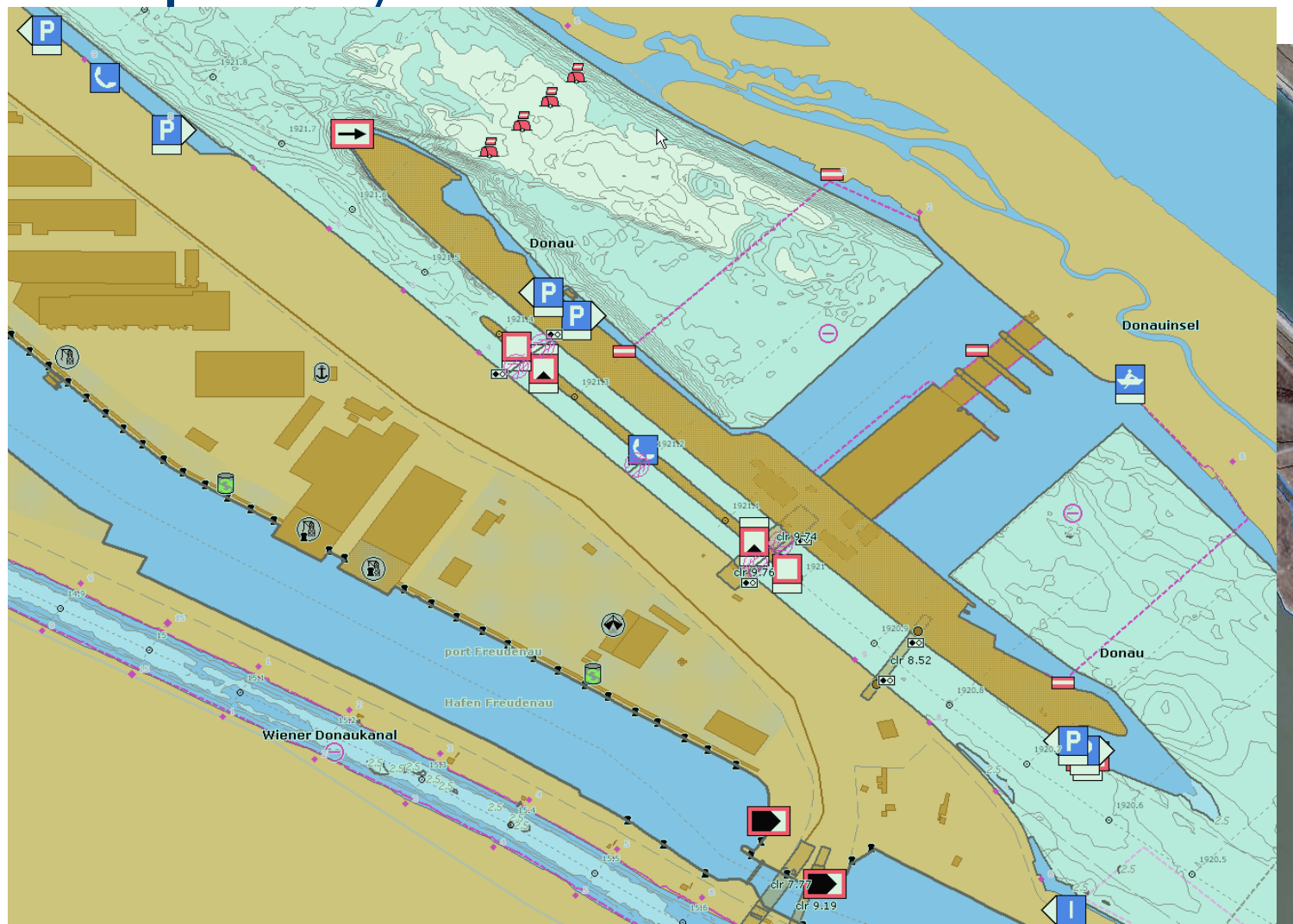


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New Orleans, Louisiana, U.S.A.

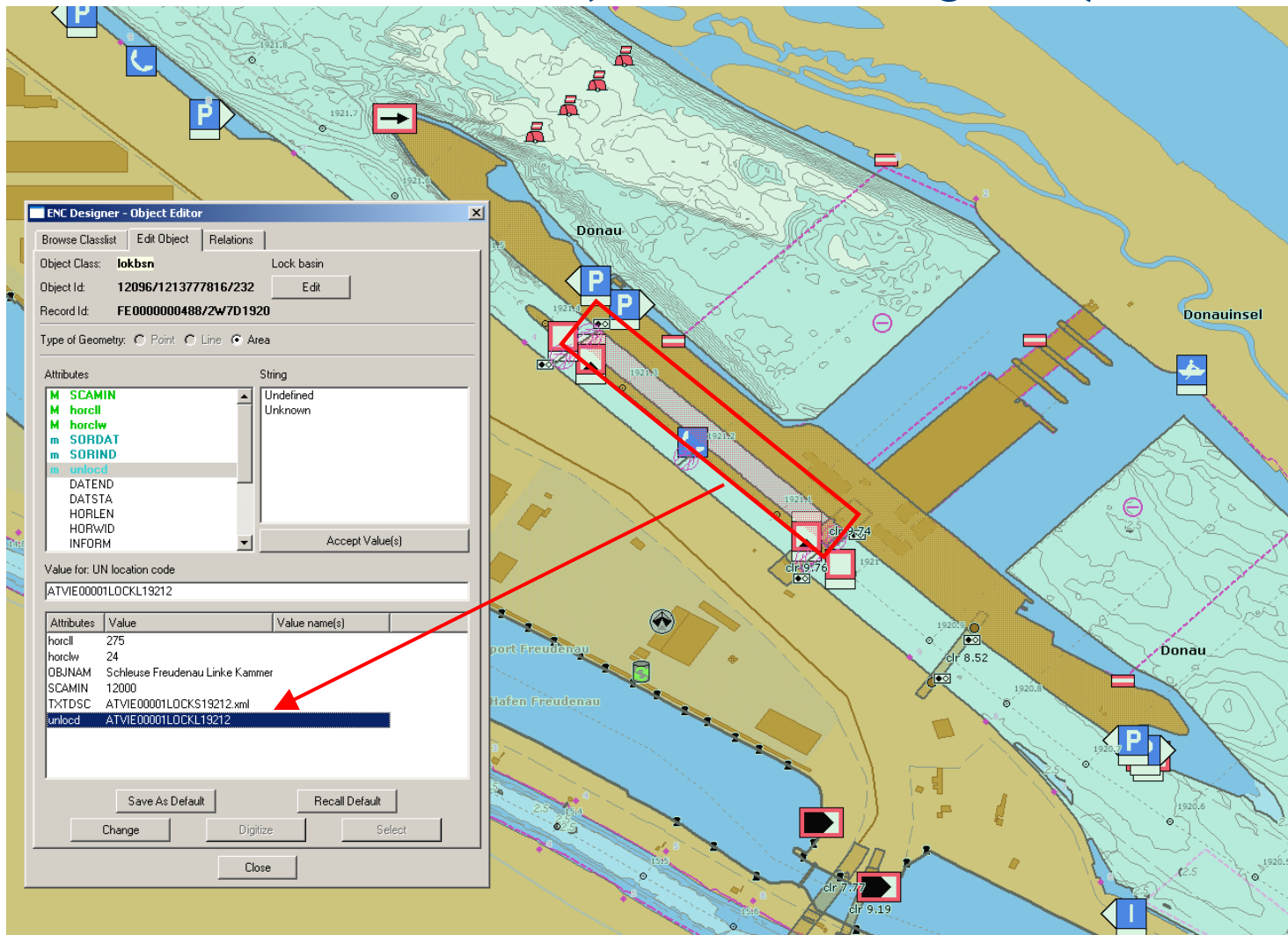


Orthophoto / GIS -> IENC



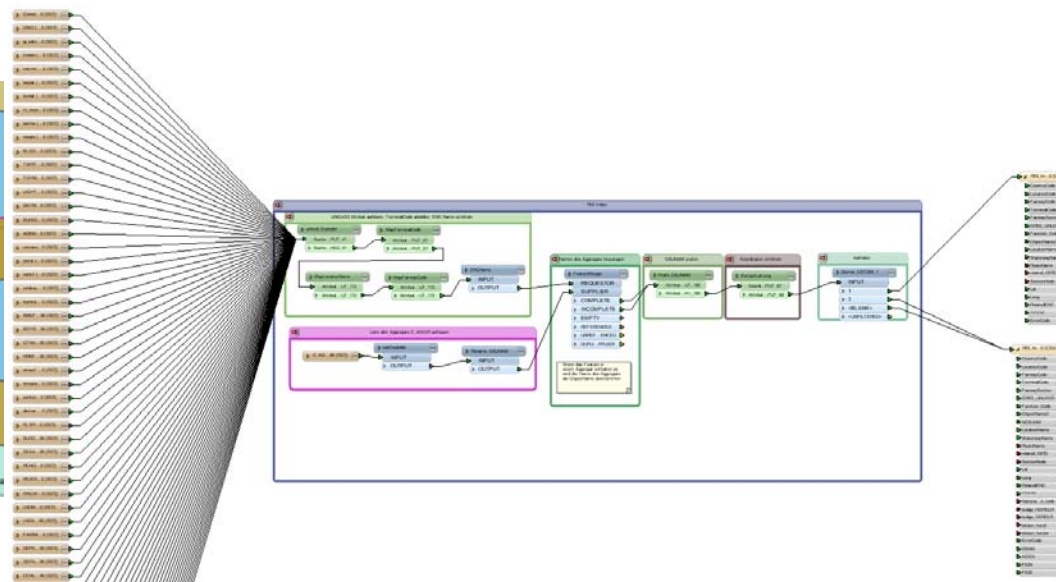
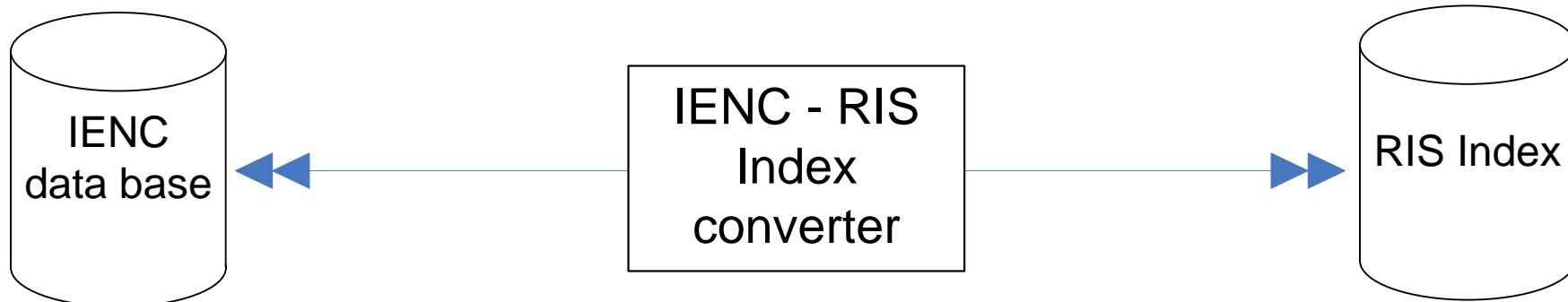


ISRS location code (IENC Designer)





IENC - RIS Index converter



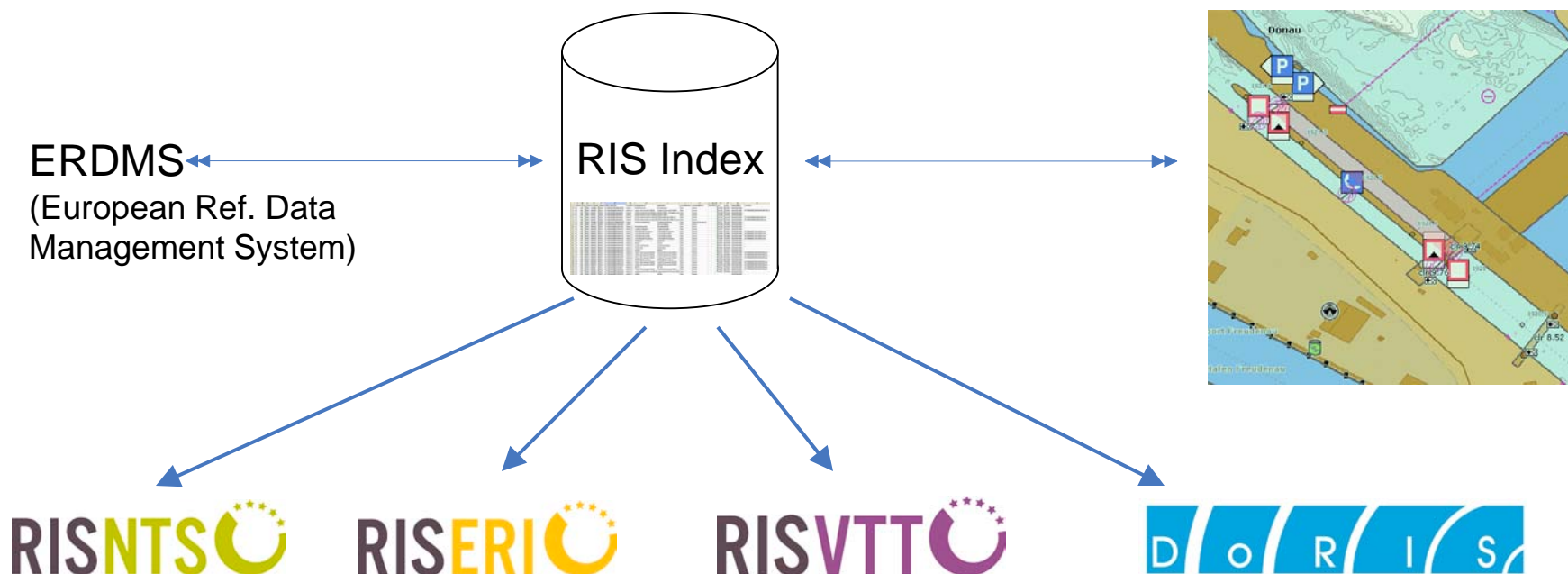
Station	Parameter	Value	Unit	Comment
1	Water level	10.5	m	
2	Water temperature	15.2	°C	
3	Water flow	1200	m³/s	
4	Water quality	Good		
5	Water level	10.5	m	
6	Water temperature	15.2	°C	
7	Water flow	1200	m³/s	
8	Water quality	Good		
9	Water level	10.5	m	
10	Water temperature	15.2	°C	
11	Water flow	1200	m³/s	
12	Water quality	Good		
13	Water level	10.5	m	
14	Water temperature	15.2	°C	
15	Water flow	1200	m³/s	
16	Water quality	Good		
17	Water level	10.5	m	
18	Water temperature	15.2	°C	
19	Water flow	1200	m³/s	
20	Water quality	Good		



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RIS geo-ref. data flow



The RIS interface shows a form for reporting a vessel's position and status. The form includes fields for:

- General**: First reporting point (*), Message type (*), Message may be forwarded, Transport document reference nr., Conveyance reference nr.
- Route**: Origin (*), Estimated departure, Destination (*), Estimated arrival, Persons on board (*).

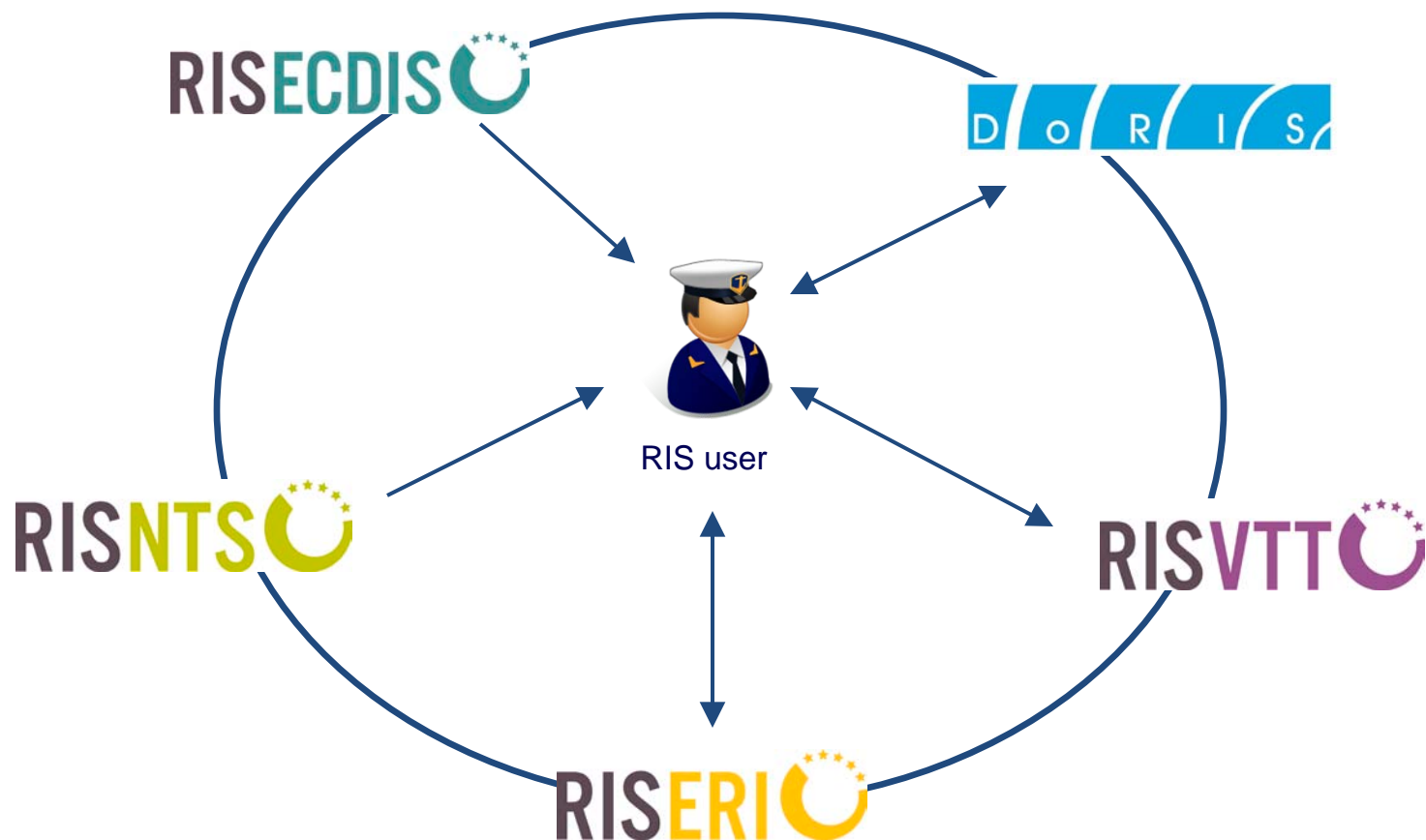
Buttons at the bottom include "Save draft ERINOT", "Save as template", and "Close without saving".

Country	Gauge Id	Water Level
AT	6	+2.41 m
AT	7	+2.40 m
AT	8	+2.45 m
AT	9	+2.19 m





Interoperability





Geo-information in NtS message

```
<object>
  <geo_object>
    <id>ATVIE00001LOCKS1
    <name>Wien-Freudenau
    <type_code>LCK</type_code>
    <coordinate>
      <lat>48.17647214
      <long>16.4779878
    </coordinate>
  </geo_object>
  <limitation>
    <limitation_period>
      <date_start>2010
      <date_end>2011-0
      <time_start>08:0
      <interval_code>C
    </limitation_period>
    <limitation_code>OBS
    <position_code>LE</p>
  </limitation>
</object>
```

D O R I S

Full text message

Revision linke Kammer der S

A new notice for skippers is available for Wien in A

The fairway and traffic related messa

Subject: Partial obstruction

Published by the Via donau.

Reason for the message: Repair.

This message is valid in the period from 2. Novemb

This message is valid for the river Donau, river km

For the lock Wien-Freudenau, river km 1921.2 is v

Additional text in national language: Sperre der lin

Back

RISNTS

Retrieval of the official Notices to Skippers, which are according to the international standard for Notices to For remarks or questions to this service please contac correctness of the data.

[Here](#) you can find further information. Download [user](#)



BMVIT - IVW2 (Schifffahrt - Technik und Nautik)
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bmvt

Bundesministerium
für Verkehr,
Innovation und Technologie

GZ: BMVIT-591.007/0138-IVW2/2010

DVR:0000175

NACHRICHT FÜR DIE BINNENSCHIFFFAHRT Nr. 104/02 aus 2010

gemäß § 24 des Schifffahrtsgesetzes, BGBl. I Nr. 62/1997 idF BGBl. I Nr. 17/2009

Korrektur - Revision linke Kammer der Schleuse Freudenau

Es liegt eine neue Nachricht für die Binnenschifffahrt für den Bereich Wien in Österreich in der Originalsprache Deutsch von via donau vor, die von dem/der bmvit am 15. Oktober 2010 verfasst wurde:

Wasserstraßen-und verkehrsbezogene Nachricht Nummer 104/02 aus 2010

Betreff: teilweise Sperre

Meldung des/der Via donau.

Grund der Nachricht: Reparaturarbeiten.

Diese Nachricht gilt in der Zeit vom 2. November 2010 bis 10. März 2011.

Diese Nachricht gilt für den Fluss Donau, Strom-km 1921.0 bis 1921.5.

Für die Schleuse Wien-Freudenau, Strom-km 1921.2 gilt in der Zeit vom 2. November 2010 08:00 Uhr bis 10. März 2011 durchgehend folgende Beschränkung: Sperre im linken Bereich.

Ergänzender Text in Originalsprache: Sperre der linken Schleusenammer Freudenau für die gesamte Schifffahrt wegen Revision.

Für die Bundesministerin:
i.V. Dipl.-Ing. Bernd Birkhuber

Ihr(e) Sachbearbeiter(in):
Silvia Leiner
Tel.Nr.: +43 (1) 71162-655903
Fax-DW.: 655999
silvia.leiner@bmvit.gv.at

elektronisch gefertigt

Diese Nachricht für die Binnenschifffahrt wurde automatisiert aus Textblöcken erstellt, welche im internationalen Standard für Nachrichten für die Binnenschifffahrt definiert sind.



NtS display in ECDIS viewer

TRESCO INLAND ECDIS Viewer 8.4.0 Shore-Based PERISKAL Масштаб 1:2812 Ориентация: 0.0°

Chart Screen Navigation Logbook Routeplanning remarks NTS AIS Hymedis Shore-Based Settings Help

Plan Monitor Std Use All Screen Navigation Routeplanning remarks Symbols Simulation Ais Voyage

2120 4 Treibpoller nicht auf Mittelmauer UKW22

nube Danube 9

Management Message RIS

Fairway

Sender of the message : via donau
Country where message is valid : AT
District/region within country: Abwinden

Target group code :
Subject : Partial obstruction
Reason of notice : Repair
Period of validity : 19-10-2007
14-12-2007
Name of Geo object : Donau
Abwinden/Asten
Kind of limitation : Blockage
Kind of limitation period : -
-

Communication channel info section :

Contents : Die rechte Schleusenkammer der Schleuse Abwinden ist wegen Reparaturarbeiten nach einer Havarie gesperrt.
Notice source (authority) : Schleusengruppe West

13:54:21

Mauthausen
453 06/12/07
9:00:00
GLLW's

GPS info
Lat: *****
Lon: *****
SOG: *****
COG: *****
Q-GPS1: INVALID
Measure
from: 0.00°
Distance:
Waypoints
Cursor
ISRS
Distance: 0 Km
River km. 0 Km
VHF:
TEL:
Length:
Width:
Height:



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Facility Information in ECDIS viewer

Browser

Charts		Objects
Description	Acronym	Cellname
Navigati...	m_nsys	2W7D1920.000
Navigati...	m_nsys	1SAD1920.000
Maximum...	lg_sdm	2W7D1920.000
Maximum...	lg_sdm	2W7D1920.000
Lock basin	lokbsn	2W7D1920.000
Depth area	DEPARE	2W7D1920.000
Coverage	M_COVR	2W7D1920.000
Coverage	M_COVR	1SAD1920.000
Communi...	comare	2W7D1920.000
Communi...	comare	1SAD1920.000
Administ...	ADMARE	2W7D1920.000

11 objects

Inspector

details

Lock basin

Object name
Schleuse Freudenau Linke Kammer

Horizontal clearance width
24

Textual description
[ATVIE00001LOCKS19212.xml](#)

Horizontal clearance length
275

UN location code
ATVIE00001LOCKL19212

Primitive
Area

Position
48 10.5904 N 016 28.6964 E

SeeMyENC

Facility Information

Schleuse Freudenau

Meta Information

- Facility Identification Number: **ATVIE00001LOCKS19212**
- Version: **4**
- Last changes: **2008-07-15 @ 12:26**
- Type of Facility: **Lock**
- Short Description:
- Operator: **via donau**
- Owner: **Verbund-Austrian Hydro Power AG**

Communication Information

Address of Facility

Street	Donau-City-Strasse 1
Postcode	1220
City	Wien
Country	Austria

Contact

Company	
Name/Function	
Phone	+43 504321 6690
Fax	+43 504321 6695
Email	schleusenaufsicht.freudenau@via-donau.org
Url	www.doris.bmvit.gv.at
Url	www.via-donau.org
Remark	

Radio Communication

Calling Name	Schleuse Freudenau
Channel	18



Dynamic lock status based on ISRS code

IRIS
v2.2.1.4318

LOGOUT PRINT CONTACT HELP

Christoph, Plasli

Inbox Search **Traffic Data** Transport Data Vessel Data ERI Report Address list Emergency Emergency Data Grant access to own vessels My Data

Traffic, Transport and Fairway related information

Vessels V-Details Water level **Lock state**

List of locks
Austria - 8/31/11 4:20 PM

Lock	left chamber	right chamber
A Aschach	available	available
B Ottensheim	available	available
C Abwinden	available	available
D Wallsee	available	available
E Ybbs	available	available
F Melk	available	available
G Altenwoerth	available	available
H Greifenstein	available	available
I Freudenau	available	available

Print list

Karte **Satellit** Hybrid

Freudenau
Left Chamber: available
Right Chamber: available
Timestamp: 8/31/11 4:20 PM
River-Km: 1921
Contact: Tel.: +43 (0) 504 321 6690
Fax: +43 (0) 504 321 6695
schleusenaufsicht.freudenau@via-donau.org

POWERED BY Google
Karten © 2011 Kartendaten © 2011 Nutzungsbedingungen

Last update:
Aug 31, 2011 4:21:48 PM

☐ Water level information
☒ Lock state

Hint
Click lock to display it on map

map collection

Show all locks Refresh





Benefits of geo-ref. data management

- Ease maintenance of ref. data and reduce redundancy
 - Ref. data changes are (automatically) rolled out to applications
 - Connected service owner/provider do not need to maintain geo-reference data
 - Interoperability between RIS services
- ➔ There is a need for uniform RIS reference data management considering all RIS services



viadonau/



Thank you for your attention!

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